

WCA Rule Advisory Committee - 4/24/08 Meeting Second Part of Draft Replacement Sections

8420.05490850 EVALUATION OF WETLAND FUNCTIONS AND VALUES DETERMINING REPLACEMENT REQUIREMENTS.

-CONTINUED-

~~Subp. 4aD. In advance replacement.~~ Replacement is in advance if the replacement is:
~~A-(1) approved wetland bank credits; or~~
~~B-(2) a replacement site that has completed the required monitoring period and been certified as complete by the LGU prior to the impacts. ~~established wetland hydrology and vegetation, but the vegetation may not be mature. At a minimum, the replacement site must have wetland hydrology and hydrophytic vegetation established one full growing season (April-October) prior to the impact. Further, the site must meet all performance standards applicable to that development stage of the replacement site.~~~~

The changes of B above is proposed to simplify the in advance replacement requirement and further encourage the use of wetland banking, while at the same time allowing for multi-phased projects to get credit for doing replacement of future impacts with one replacement site. Eliminating the requirement of an LGU to determine whether a replacement site was constructed, seeded, and established for one full growing season and potentially requiring some type of corrective action will streamline administration, provide more certainty for applicants, and provide more consistency with banking. Wetland Bank Credits are a known commodity and have already been established to state requirements and are generally of higher quality than project specific replacement.

There were two options discussed by the Technical Committee concerning in-advance. Both would use the above language but would differ in the method for achieving it.

Option #1: All replacement must be constructed prior to or concurrent with the impact, but a financial assurance would be required for any replacement that doesn't meet the in-advance definition above. The financial assurance would serve as a strong incentive for banking or in-advance replacement and would assure quality replacement. The Technical Committee felt that the financial assurance will be a stronger incentive than an increased replacement ratio, making the .25:1 penalty unnecessary, and will better assure quality mitigation. The majority of the Technical Committee recommended this option.

Option #2: This option is similar to the above, but a .25:1 replacement ratio penalty would be applied when replacement does not meet the above in-advance criteria, regardless of the financial assurance. The replacement ratio table in this part would remain unchanged. Two members of the Technical Committee supported this option.

~~Subp. 4bE. In-place replacement.~~ For the purpose of determining replacement ratio requirements, ~~R~~replacement is in-place if the mitigation occurs within the same major watershed as the permitted activity or, if wetland credits are withdrawn from an approved wetland bank site, in the same bank service area as that where the permitted impact occurred, according to the map in this ~~subpart~~ item. The following exceptions apply to this definition:

- ~~A-(1)~~ replacement for impacts in bank service area 10 can be accomplished in bank service area 9 or the Des Moines River Basin in bank service area 8 with no increase in the replacement ratio;
- ~~B-(2)~~ replacement for impacts in bank service area 1 can be accomplished in bank service area 2 with no increase in the replacement ratio; and
- ~~C-(3)~~ the board may approve special replacement ratios based on data derived from comprehensive inventories of replacement opportunities. The replacement ratios shall be noticed by the

board to local government units and published in the State Register. The board shall provide opportunities for public input and comment prior to publishing the special replacement ratios. The conditions and standards shall take effect 30 days after publication and remain in effect unless superseded by subsequent statute, rule, or notice in the State Register.

The addition above is made in an attempt to clarify the difference between “In-Place” and the siting criteria.

The Technical Committee generally supported watershed-based replacement siting criteria with the exception of county boundaries. Members of the committee felt that, for counties that contain multiple BSAs, there shouldn't be a penalty for replacement outside the BSA if within the same county. Members also felt that, in south & west parts of the state, the BSA concept could allow replacement too far away from the impact site and that adding county boundaries would eliminate that concern, while flexibility should be allowed for >80% counties to replace in <50%. These comments are related to the siting section below as well. Additional input on the in-place criteria is requested.

8420.0543-F. Wetland Replacement Siting.

A. Siting wetland replacement must follow this priority order:

(1) ~~on-site or~~ in the same minor watershed as the affected wetland;

(2) in the same major watershed as the affected wetland;

(3) in the same county as the affected wetland;

(4) for replacement by wetland banking, in the same wetland bank service area as the impacted wetland, except that impacts in a 50 to 80 percent area must be replaced in a 50 to 80 percent area and impacts in a less than 50 percent area must be replaced in a less than 50 percent area;

(5) for project specific replacement, in an adjacent watershed to the affected wetland or, for replacement by wetland banking, in an adjacent wetland bank service area, except that impacts in a 50 to 80 percent area must be replaced in a 50 to 80 percent area and impacts in a less than 50 percent area must be replaced in a less than 50 percent area;

(6) notwithstanding subitems (1) to (5), public transportation projects may be replaced statewide, except that wetlands affected in less than 50 percent areas must be replaced in less than 50 percent areas, and wetlands affected in the seven-county metropolitan area must be replaced at a ratio of two to one in:

(a) the affected county or;

(b) if no restoration opportunities exist in the county, in another seven-county metropolitan area county; or

(c) in one of the major watershed that are wholly or partially within the seven county metropolitan area, but at least one-to-one must be replaced within the seven county metropolitan area;

(7) notwithstanding items (1) to (5), siting wetland replacement in greater than 80 percent areas may follow the priority order under this subitem:

(a) by wetland banking after evaluating on-site replacement and replacement within the watershed;

(b) replaced in an adjacent wetland bank service area if wetland bank credits are not reasonably available in the same wetland bank service area as the affected wetland, as determined by a comprehensive inventory approved by the board; or

(c) statewide; or

(8) notwithstanding subitems (1) to (5), siting wetland replacement in the seven-county metropolitan area must follow the priority order under this subitem:

(a) in the affected county;

(b) in another of the seven metropolitan counties; or

(c) in one of the major watersheds that are wholly or partially within the seven-county metropolitan area, but at least one-to-one must be replaced within the seven-county metropolitan area.

B. Until December 31, 2012, existing wetland bank account holders outside of the seven county metropolitan area, but within a major watershed that is wholly or partially within the seven county metropolitan area, may withdraw wetland credits according to part 8420.0541 that was in effect at the time of the deposit of the public value credit or new wetland credits.

C. Until December 31, 2012, local government units may approve wetland replacement plans that propose replacement via wetland banking, using credits established according to the replacement siting rule in effect on August 5, 2007.

D. When reasonable, practicable, and environmentally beneficial replacement opportunities are not available in siting priorities listed in item A, the applicant may seek opportunities at the next level.

E. For the purposes of item D, "reasonable, practicable, and environmentally beneficial replacement opportunities" means opportunities that:

(1) take advantage of naturally occurring hydrogeomorphological conditions and require minimal landscape alteration;

(2) have a high likelihood of becoming a functional wetland that will continue in perpetuity;

(3) do not adversely affect other habitat types or ecological communities that are important in maintaining the overall biological diversity of the area; and

(4) are available and capable of being done after taking into consideration cost, existing technology, and logistics consistent with overall project purposes.

The price of wetland bank credits alone shall not deem that a reasonable, practicable, or environmentally beneficial replacement opportunities are not available.

F. Regulatory agencies, local government units, and other entities involved in wetland restoration shall collaborate to identify potential replacement opportunities within their jurisdictional areas.

The wetland replacement siting section above was relocated here from .0543 (item and line numbering/lettering has yet to be changed).

The added language in item E above is proposed so credit price alone is not a factor in meeting the siting criteria. This addition will establish additional market confidence so that wetland bankers are more likely to establish bank credits in the BSAs where they are needed, rather than creating them where it is cheapest.

NOTE: The in-place and siting sections above, while currently in order but separate, were proposed to be combined in one item to combine the in-place definition with the siting criteria. The principles are similar and should be placed in the rule together to avoid confusion. However, the siting section is a requirement rather than a factor to determine replacement ratios, so it may not be a clean fit in this section as there needs to be a clear distinction between the definition of in-place and the siting requirements. The wording and language changes needed to combine these two parts is yet to be determined, and input on the format and language of these sections (and whether to combine them or not) is requested. The Technical Committee recommended considering restructuring the siting requirements to have separate sections for >80, 50-80, <50, transportation, etc. for clarity.

Subp. 2. Type of replacement.

A. The preference for the method of replacement is that which is most likely to result in a wetland area that functions wholly, perpetually, and naturally. Wetland restoration is generally preferred over creation and restoration of completely impacted wetlands is generally preferred over other methods of replacement.

B. Modification or conversion of nondegraded wetlands from one wetland type to another by damming, diking, impounding, or excavating does not constitute replacement credit.

C. Wetlands ~~drained or filled~~ impacted under an exemption may not be restored for replacement credit for ten years after ~~draining or filling~~ the exempt impact.

The above subpart was relocated here from .0540 subpart 2. The change to item C was made to clarify that the 10 year time-frame starts at the completion of the exempt activity, not upon restoration of the replacement wetland.

8420.0546 Size of Replacement Wetlands. Subp. 3. Amount of replacement.

Replacement wetlands must be of a size sufficient to ensure that they provide equal or greater public value than the wetland that was ~~drained or filled~~ impacted. The minimum amount of replacement wetland that must be provided is shown in ~~part 8420.0549, subpart 4c~~ the replacement ratio table in this subpart. For a wetland located on nonagricultural land in a 50 to 80 percent area or a less than 50 percent area, the minimum size of the replacement wetland must be in the ratio of two acres of replaced wetland for each acre of ~~drained or filled~~ impacted wetland. For a wetland located on agricultural land, or in greater than 80 percent areas, the minimum size of the replacement wetland must be in the ratio of one acre of replaced wetland for each acre of ~~drained or filled~~ impacted wetland. The actual replacement ratios required for a replacement wetland may be more than the minimum, subject to the evaluation of wetland functions and values in part 8420.05490850 Subpart 1.

For wetlands located in a 50 to 80 percent area or a less than 50 percent area, future owners may make no use of the wetland after it is altered, other than as agricultural land for a period of ten years unless future replacement to achieve a ratio equaling or exceeding the appropriate ratio in part 8420.0549, subpart 4c, occurs. The landowner shall record a notice of this restriction in the office of the county recorder in which the project is located.

Replacement Ratio Table. — Subp. 4c. Minimum wetland replacement ratios: The minimum wetland replacement ratios are based on the location of the impact and replacement, the wetland type, and the timing of the replacement, as determined by the table below.

Impact Location	Replacement Location (in place)	Type of Replacement Wetland (in type)	Replacement Process (in time)	Minimum Replacement Ratio
> 80% area (see Fig. 2) (or agricultural land – WCA)	In-Place	Same type as impact wetland	In advance	1:1
			Not in advance	1.25:1
		Different type	In advance	1.25:1
			Not in advance	1.5:1
	Not In-Place	Same type as impact wetland	In advance	1.25:1
			Not in advance	1.5:1
		Different type	In advance	1.5:1
			Not in advance	1.5:1
< 80% area (See Fig. 2) (and non-agricultural land – WCA)	In-Place	Same type as impact wetland	In advance	2:1
			Not in advance	2.5:1
		Different type	In advance	2.5:1
			Not in advance	2.5:1
	Not In-Place	Same type as impact wetland	In advance	2.5:1
			Not in advance	2.5:1
		Different type	In advance	2.5:1
			Not in advance	2.5:1

The table above is shown unchanged from the Exempt Rule and the MOU. Changes to the in-kind (previously discussed), in-time, or in-place requirements could alter the table and possibly reduce the number of categories and the size of the table. A number of options have been identified and discussed thus far in the process. Any potential changes that may be pursued would be discussed further with the Technical and Advisory Committees, and in detail with the Corps as well.

NOTE: *Through the rulemaking process, many comments and recommendations have been received regarding the replacement table, its varying ratios, and the criteria used to determine the ratio. Recommendations have varied from eliminating the table and its penalties entirely, to making some modifications to it, to keeping it as is, to raising the ratios across the board. There have been several recommendations to reconsider the following option:*

Option: *Eliminate the table but raise the ratios slightly across the board (1.5:1 and 2.5:1 for example), while allowing additional options for replacement credit, particularly in >80% counties. The rationale behind this option is that it would simplify replacement and administration of WCA, would not be an additional burden because additional options would be available for replacement (particularly in >80% counties), and it would better achieve the goals of WCA. It is presented here for discussion and comment.*

8420.0542 Subp. 4 Timing of Replacement Plan Approval.

~~Replacement of wetland functions and values must be completed in advance of or concurrent with the actual draining, excavation, or filling of a wetland, unless an irrevocable bank letter of credit or other security acceptable to the local government unit is submitted to the local government unit to guarantee successful completion of the replacement. Local government units may require performance bonds or similar instruments to assure that the replacement wetland is successfully established. All wetlands to be restored or created for replacement must be designated for replacement before restoration or creation. Submission to the local government unit of the information required in part 8420.0530 and subsequent approval shall be considered evidence of designation for replacement, provided the information is submitted before the actual restoration or creation. The exceptions contained in part 8420.0544 do not apply to replacement completed using wetland banking credits established by a person who submitted a complete wetland banking application to a local government unit by April 1, 1996.~~

Subpart 4 was relocated here from .0542. Unnecessary language removed and the title changed to clarify that it pertains to replacement plan approval.

Subp. 5. Determining impacts of partial drainage. In cases where wetlands will be partially or incompletely drained, the amount of wetland to be replaced must be determined as follows:

The area impacted by partially draining a wetland is determined in two parts. The wetland area where the hydrology is totally removed must be replaced in its entirety. The area that is partially drained must be replaced in an amount that is at least 50 percent of the acreage of the remaining wetland area or determined by an assessment of the wetland functions listed in part [8420.0103](#), using a methodology chosen by the technical evaluation panel from one of the methodologies established or approved by the board.

Subp. 6. Alternative evaluation methodologies. The local government unit may evaluate the replacement plan using a scientifically accepted methodology that evaluates all wetland functions specified in Minnesota Statutes, section [103B.3355](#), for both the impacted and replacement wetlands. Such alternative methodologies must be approved and listed by the board, in consultation with the commissioners of natural resources and agriculture, and local government units.

When using alternative evaluation methodologies to evaluate replacement plans, the ratio of impact wetland to replacement wetland must not be less than the minimum acreage requirements as listed in part [8420.0546](#), except as provided for in part [8420.0650](#).

Subp. 7. Special cases or appeals. For projects of unusual complexity, or replacement plans that have been denied and are being appealed, and for which the local government unit believes an

alternative evaluation process may produce a substantially different replacement requirement, the local government unit may evaluate the replacement plan using the current version of the Minnesota wetland evaluation methodology or another scientifically accepted methodology approved by the board, in consultation with the commissioner, that evaluates all wetland functions and values for both the impacted and replacement wetlands.

When using a board-approved methodology to evaluate replacement plans, the ratio of impacts ~~wetland~~ to replacement ~~wetland~~ must not be less than the minimum ~~acreage~~ requirements as listed in part [8420.0546](#), ~~or according to a Board approved Comprehensive Wetland Protection and Management Plan meeting the requirements of part 8420.XXXX, if one exists.~~ ~~Further, the topographic setting ratio in subpart 4 and the local public value ratio, if any, in subpart 4 must also be considered when using a board-approved methodology.~~

Subparts 5, 6, and 7 will be revisited and could be relocated within this section or to another area of the rule. The revisions above eliminate outdated language and add CWMPs for consistency.

~~Subp 8. **Adequacy decision.** A replacement plan that fails to meet the requirements in this part must be considered inadequate in replacing lost functions and values and must be denied by the local government unit. A replacement plan that has been considered by the local government unit and not approved may be revised and resubmitted for consideration by the local government unit. As required by part [8420.0250](#), the decision of a local government unit to approve, approve with conditions, or deny a replacement plan becomes final if not appealed to the board within 30 days after the date on which the decision is mailed to those required to receive notice of the decision. Within 30 days of completing construction of a replacement wetland, the notice specified in part [8420.0530](#), item D, subitem (6), must be recorded and proof of recording provided to the local government unit.~~

Subpart 8 was relocated to the 8420.0800, Replacement Plan Standards.

NOTE: The section below is intended to serve as a single location for replacement wetland design standards. The standards would apply to all replacement wetlands, whether project specific or banking. The section also differentiates between design requirements and considerations/recommendations. Additional language could be added to this part.

8420.05500870 WETLAND REPLACEMENT WETLAND STANDARDS.

Subpart 1. **General requirements.** The standards and guidelines in this part shall be used in wetland creation and restoration efforts to ensure adequate replacement of lost wetland functions and values.

In evaluating a wetland replacement plan, ~~the local government unit must determine whether the wetland type stated as the replacement plan goal will result from the replacement plan specifications. If a wetland type other than the replacement plan goal is likely to result, the local government unit must evaluate the plan based on this determination. The local government unit must also determine that the proposed replacement plan will adequately replace functions and public values lost.~~ if the local government unit determines that adequate replacement of function and public value is not likely to result, the local government must ~~determine what further measures are~~ require modifications necessary to obtain adequate replacement, which could include a higher replacement ratio, or deny the replacement plan.

Some of the redundancy in the above paragraph was removed.

Subp. 2. **Specific Design requirements.** The standards in ~~items A to H~~ this subpart shall be followed in for all replacement wetlands ~~replacements~~ unless the LGU, with concurrence of the technical evaluation panel, determines that a standard is clearly not appropriate.

A. Water control structures must be constructed using specifications provided in the Minnesota Wetland Restoration Guide or their equivalent. Control structures may be subject to the Department of Natural Resources dam safety regulations.

B. Best management practices must be established and maintained ~~adjacent to the entire perimeter of all replacement wetlands in accordance with the requirements in 8420.0400 subpart 2.~~

C. ~~For replacement wetlands where native, noninvasive vegetation that is characteristic of the wetland type identified as the replacement goal in part 8420.0530, item D, is not likely to become dominant naturally in a five-year period, the replacement wetland Appropriate native, non-invasive vegetation shall be ~~seeded or planted~~ established in accordance with the approved vegetation establishment and management plan with appropriate native, noninvasive species, as determined by the technical evaluation panel. ~~If the replacement wetland is seeded or planted, the seed or planting stock should be from native, noninvasive species of regional wetland origin.~~ During the monitoring period, the applicant must take reasonable steps to control invasion by any nonnative or invasive species, ~~for example, reed canary grass, Canada thistle, common buckthorn, spotted knapweed, leafy spurge, purple loosestrife, and Eurasian water milfoil, that would defeat the revegetation goal of the replacement plan.~~~~

Item C was reworded for clarity.

D. ~~Erosion control measures as determined by the soil and water conservation district must be employed during construction and until permanent ground cover is established to prevent siltation of the replacement wetland or nearby water bodies.~~

Seed/planting stock requirements and specifics of the 5 year vegetation establishment and management plan will be covered in the application section. The language contained in item D was deleted as it is covered under item B for BMP's and was redundant.

~~Restored or created replacement wetlands must have an upland buffer of non-invasive vegetation adjacent to the entire restored or created wetland area receiving credit, except where contiguous with existing wetlands or water bodies. The buffer width must be a minimum of 25 feet in municipal areas and a minimum of 50 feet in non-municipal areas. To receive replacement credit, the buffer must meet the buffer requirements under part 8420.XXXX, actions eligible for credit.~~

The above addition is made to require buffers around all replacement wetlands and more closely align with USCOE requirements.

The Technical Committee recommended simplifying this requirement by eliminating the different standard for municipal and non-municipal areas and replacing it with one minimum width for all mandatory buffers. Recommendations for the actual minimum width varied from 30 to 80 feet. The option to expand the buffer beyond the minimum would still exist. This option is presented here for discussion.

E. ~~For all restored wetlands where the original organic substrate has been stripped away and for all created wetlands, provisions must be made for providing an organic substrate unless the technical evaluation panel recommends otherwise. When feasible, the organic soil used for backfill should be taken from the drained or filled wetland dominated by native, noninvasive species. Organic soil for backfill from wetlands dominated by nonnative, invasive species should be avoided.~~

The language in item E was relocated to Subpart 3(C) below (Design Considerations).

F. ~~The bottom contours of created types 3, 4, and 5 shallow marsh, deep marsh, and shallow open water wetlands should ~~be undulating, rather than flat, to~~ provide a variety of water depths, comparable to natural wetlands in the vicinity of the replacement, and be consistent with part 8420.0547, subpart 2.~~

~~FG. The edge of created or re-graded wetlands must be irregular to create points and bays, and be consistent with part 8420.0547, subpart 2. Sideslopes of created wetlands or re-graded portions of restored wetlands, and graded buffer strips, must not be steeper than 5:1, ~~five feet horizontally for every one foot vertically as averaged around the wetland.~~ Sideslopes of 10:1 to 15:1 are preferred. More than half of the slopes of graded areas inside the exterior boundaries of restored, created, or enhanced~~

wetlands must be no steeper than 10:1 unless the technical evaluation panel concurs that steeper slopes are acceptable based on the ecology of the site.

~~—H. Created wetlands should have an irregular edge to create points and bays, consistent with part 8420.0547, subpart 2.~~

The changes above were made to simplify the slope requirements for replacement wetlands. The previous item H was also incorporated into the new item F. The Technical committee recommended to require all graded slopes to be 10:1 or flatter unless the TEP concurs steeper slopes are acceptable.

8420.0547 OTHER REQUIREMENTS.

~~Subpart 1. **Carbon balance.** G.~~ When it is necessary to replace an ~~drained or filled impacted~~ peatland, the replacement wetland must be revegetated with planted or naturally pioneering native vegetation established within three growing seasons.

~~—Subp. 2. **Ecological consistency.** H.~~ Restoration and replacement of wetlands must be accomplished according to the ecology of the landscape area affected. A replacement plan that would result in wetlands or wetland characteristics that do not naturally occur in the landscape area in which the replacement will occur ~~will must~~ not be approved.

Items G and H were relocated from .0547 (Other Requirements) as they are replacement wetland design requirements.

Subp 3. **Design Considerations.** The following replacement wetland design elements must be considered for replacement wetlands and incorporated to the extent possible.

- A. Whenever possible, wetland restorations should emulate the hydrology and vegetation of the pre-settlement wetland condition.
- B. Increased buffer widths should be incorporated into replacement wetland designs where areas of concentrated flow are present or it is necessary to provide wildlife habitat corridor connections with other wetlands or wildlife areas.
- C. E. For all restored wetlands where the original organic substrate has been stripped away, and for all created wetlands, provisions must be made for providing an the organic substrate unless the technical evaluation panel recommends otherwise must be sufficient to establish a functioning wetland according to the goals of the replacement plan. When feasible, the organic soil used for backfill or other topsoil should be taken from the drained or filled impacted wetland dominated by native, noninvasive species and salvaged for utilization in the replacement wetland. Organic soil for backfill from wetlands dominated by nonnative, invasive species should be avoided.

Item A was added to attempt to make sure that restoration wetlands are consistent with the natural ecology of the site, but allowing some flexibility to allow for landscape changes that may make recreating the historical condition impossible.

Item B was added to prevent channelized flow into a replacement wetland from causing additional sedimentation into the wetland.

Items C was relocated here from Subpart 2, item E above. The changes were made to provide additional flexibility on organic substrates to prevent spread of invasive or non-native species to the replacement wetland.

Subp 4. Financial Assurance

For wetland replacement that is not in advance according to 8420.0850 subp. 1D, a financial assurance acceptable to the local government unit must be submitted to the local government unit to guarantee successful replacement. The financial assurance must be specific to the replacement wetland, and may be used to cover costs of actions necessary to bring the project into compliance with the approved replacement plan specifications and monitoring requirements. The financial assurance is not intended to serve as an in-lieu fee and is not a substitute for enforcement, but may be used for repair, construction, vegetation establishment and management, maintenance, monitoring, or other actions necessary to

ensure adequate replacement. The financial assurance will be returned to the applicant upon successful completion of the monitoring requirements in 8420.0600–8420.0630. The LGU may release a portion of the financial assurance upon successful completion of construction, but must retain a sufficient amount to ensure successful vegetative establishment and completion of the monitoring period.

This is a new section. As currently written, the financial assurance would apply to all project specific replacement that is not in-advance (according to the definition in this draft rule section). More specific guidance would be developed by BWSR to provide for consistent use and to prevent abuse.